



Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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Kronborgsgränd 7, 164 46 Kista

Email: edu.ecs.se@arrow.com

Phone: +46 8 555 188 00



Developing iRules For BIG-IP v16.1

CODE:	LENGTH:	PRICE:
F5N_IRDEV	24 Hours (3 days)	kr27,500.00

Description

This course provides networking professionals a functional understanding of iRules development. The course builds on the foundation of the Administering BIG-IP v12 course, demonstrating how to logically plan and write iRules to help monitor and manage common tasks involved with processing traffic on the BIG-IP. Course Labs consist of writing, applying and evaluating the effect of iRules on LTM traffic. This hands-on course includes lectures, labs, and discussions.

Objectives

Chapter 1: Setting Up the BIG-IP System• Introducing the BIG-IP System• Initially Setting Up the BIG-IP System

- Archiving the BIG-IP System Configuration• Leveraging F5 Support Resources and Tools

Chapter 2: Getting Started with iRules

- Customizing Application Delivery with iRules• Triggering an iRule• Leveraging the DevCentral Ecosystem
- Using the F5 iRule Editor• Assigning and Testing iRules

Chapter 3: Exploring iRule Elements• Introducing iRule Constructs

- Understanding iRule Events and Event Context• Working with iRule Commands
- Logging from an iRule Using SYSLOG-NG Working with User-Defined Variables• Working with Operators and Data Types
- Working with Conditional Control Structures• Incorporating Best Practices in iRules

Chapter 4: Developing and Troubleshooting iRules• Mastering Whitespace and Special Symbols

- Developing and Troubleshooting Tips• Tracing iRule Execution and Profiling Performance
- Using Fiddler to Test and Troubleshoot iRules

Chapter 5: Optimizing iRule Execution• Understanding the Need for Efficiency

- Profiling iRule Performance with the Rule Profiler• Measure iRule Runtime Efficiency Using Timing Statistics
- Modularizing iRules for Administrative Efficiency• Using Procedures to Modularize Code• Optimizing Logging
- Using High-Speed Logging Commands in an iRule• Implementing Other Efficiencies• Using Looping Control Structures

Chapter 6: Securing Web Applications with iRules• Integrating iRules into Web Application Defense

- Mitigating HTTP Version Attacks• Mitigating Path Traversal Attacks
- Using iRules to Defends Against Cross-Site Request Forgery (CSRF)• Mitigating HTTP Method Vulnerabilities
- Securing HTTP Cookies with iRules• Adding HTTP Security Headers• Removing Undesirable HTTP Headers

Chapter 7: Working with Numbers and Strings• Understanding Number Forms and Notation• Working with Strings

- Combining Strings• Using iRule String Parsing Functions

Chapter 8: Processing the HTTP Payload

- Reviewing HTTP Headers and Commands• Accessing and Manipulating HTTP Headers• Parsing the HTTP URI
- Selectively Compressing HTTP Data

Chapter 9: Working with iFiles and Data Groups• Working with iFiles

- Introducing Data Groups• Working with Old Format Data Groups• Working with New Format Data Groups

Chapter 10: Using iRules with Universal Persistence, Stream, and Statistics Profiles• Implementing Universal Persistence

- Working with the Stream Profile• Collecting Statistics Using a Statistics Profile• Collecting Statistics Using iStats

Chapter 11: Incorporating Advanced Variables• Reviewing the Local Variable Namespace• Working with Arrays

- Using Static and Global Variables• Using the Session Table

Audience

This course is intended for system administrators, network administrators and application developers responsible for the customization of traffic flow through a BIG-IP system.

Prerequisites

Students must complete one of the following F5 prerequisites before attending this course:

- [Administering BIG-IP](#) instructor-led course
- [Configuring BIG-IP LTM](#) instructor-led course
- [F5 Certified BIG-IP Administrator](#)

The following free web-based courses, although optional, will be very helpful for any student with limited BIG-IP administration and configuration experience:

- [Getting Started with BIG-IP](#) web-based training
- [Getting Started with BIG-IP Local Traffic Manager \(LTM\)](#) web-based training

The following general network technology knowledge and experience are recommended before attending any F5 Global Training Services instructor-led course:

- OSI model encapsulation
- Routing and switching
- Ethernet and ARP
- TCP/IP concepts
- IP addressing and subnetting
- NAT and private IP addressing
- Default gateway
- Network firewalls
- LAN vs. WAN

The following **course-specific** knowledge and experience is suggested before attending this course:

- HTTP protocol
- Any programming language

Programme

- Setting up the BIG-IP system
- Getting started with iRules
- Using the iRules Editor
- Leveraging DevCentral resources for iRule development
- Exploring iRule elements, including events, functions, commands, variables, and operators
- Using control structures for conditional branching and looping
- Mastering whitespace, grouping, and special symbols
- Tracing iRule execution and profiling performance using the Rule Profiler
- Measuring iRule efficiency using timing statistics
- Logging from an iRule using syslog-ng and high-speed logging (HSL)
- Optimizing iRules execution, including implementing efficiency best practices
- Modularizing iRules for administrative efficiency, including using procedures
- Securing web applications with iRules, including preventing common HTTP attacks, securing HTTP headers and cookies, and implementing HTTP strict transport security (HSTS)
- Working with strings, including using Tcl parsing commands and iRules parsing functions
- Accessing and manipulating HTTP traffic, including applying selective HTTP compression
- Working with iFiles and data groups
- Using iRules with universal persistence and stream profiles
- Gathering statistics using STATS and ISTATS
- Incorporating advanced variables, including arrays, static variables, and the session table

Session Dates

På begäran, [kontakta oss](#)

Ytterligare information

[Denna utbildning finns också som utbildning på plats. Kontakta oss för mer information.](#)